IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

MAGIC LABS, INC.,	)	
	)	
Plaintiff,	)	
	)	
v.	)	C.A. No. 23-967 (RGA)
	)	
HORKOS, INC. d/b/a PRIVY	)	
	)	
Defendant.	)	

DEFENDANT HORKOS, INC.'S OPENING BRIEF IN SUPPORT OF PARTIAL MOTION TO DISMISS PLAINTIFF MAGIC LABS, INC.'S FIRST AMENDED COMPLAINT PURSUANT TO FED. R. CIV. P. 12(B)(6) AND 35 U.S.C. § 101

MORRIS, NICHOLS, ARSHT & TUNNELL LLP
Jack B. Blumenfeld (#1014)
Brian P. Egan (#6227)
1201 North Market Street
P.O. Box 1347
Wilmington, DE 19899-1347
(302) 658-9200
jblumenfeld@morrisnichols.com
began@morrisnichols.com

Attorneys for Defendant

OF COUNSEL:

Alyssa Caridis
ORRICK, HERRINGTON
& SUTCLIFFE LLP
355 South Grand Avenue, Suite 2700
Los Angeles, CA 90071
(213) 629-2020

Clement S. Roberts
ORRICK, HERRINGTON
& SUTCLIFFE LLP
The Orrick Building
405 Howard Street
San Francisco, CA 94105
(415) 773-5700

January 22, 2024

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I. NATURE AND STAGE OF THE PROCEEDING

Magic Labs, Inc. ("Magic") initially sued Horkos, Inc. d/b/a Privy ("Privy"), alleging infringement of U.S. Patent No. 11,546,321 ("the '321 patent"). D.I. 1. After Privy moved to dismiss, Magic filed its First Amended Complaint ("FAC"), adding infringement allegations with respect to U.S. Patent No. 11,818,120 ("the '120 patent"). D.I. 14 ¶ 1. The two patents belong to the same patent family, but claim different subject matter. The '321 patent claims software that facilitates an end user setting up storage of digital "keys" with a third-party key storage provider. '321 patent, 11:4–13:9. The '120 patent claims, among other things, "[a] method for signing transaction data for a decentralized application transaction." '120 patent, 11:11–12. Privy now moves for partial dismissal of the FAC pursuant to Fed. R. Civ. P. 12(b)(6) and 35 U.S.C. § 101, again arguing that the '321 patent is invalid as directed to an abstract idea.[1]

II. SUMMARY OF ARGUMENT

Patent law does not protect abstract ideas, even when claimed in a particular technological context. *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 573 U.S. 208, 223 (2014) (providing subject matter eligibility framework under § 101). The '321 patent claims are directed to the abstract idea of using software to facilitate set up of third-party storage for digital keys. Using software to facilitate third party storage is a well-established abstract idea. *E.g. Universal Secure Registry LLC v. Apple Inc.*, 10 F.4th 1342, 1350 (Fed. Cir. 2021). Indeed, it is near-identical to the abstract idea in *Alice*. 573 U.S. at 223. And no inventive concept transforms this abstract idea into a patent-eligible invention because the claims call only for conventional data transmission and manipulation, performed using generic computers. Magic alleges that the '321 patent claims embody an

[1] In the interest of streamlining issues, Privy does not challenge the subject matter eligibility of the '120 patent at this time. But, to be clear, the '120 patent is also directed to patent-ineligible subject matter for the same reasons discussed herein, as well as related reasons. Privy reserves the right to challenge the eligibility of that patent after further factual development.

inventive "architecture," but that *conclusion* is belied by the claim language and Magic's admissions about the prior art.

III. STATEMENT OF FACTS

Magic and Privy are software companies that develop systems for creating and maintaining blockchain[2] wallets. D.I. 14 ¶¶ 6, 8, 15. On September 1, 2023, Magic sued Privy, alleging infringement of the '321 patent. D.I. 1. On November 11, 2023, Privy moved to dismiss Magic's Complaint because the '321 patent is directed to an unpatentable abstract idea. Magic then filed its FAC, alleging infringement of both the '321 and the '120 patents. D.I. 14 ¶ 1. This motion again challenges the validity of the '321 patent on the grounds that it is directed to an abstract idea.

Magic's '321 patent is titled "Non-Custodial Tool for Building Decentralized Computer Applications." The patent purports to disclose "an improved system for securing data" in which users first generate a cryptographic key and then send the key to a third-party key storage provider. *Id.* at 1:41, 12:8–12; 1:51–55; D.I. 14 ¶¶ 32–33.

A. Cryptographic Keys

The '321 specification explains that the "username/email/phone+password security model" relied on by many web-based applications provides subpar security. '321 patent, 1:8–15, 3:27–32. This is because "password leaks are prevalent," and hackers are proficient at using leaked passwords to compromise accounts. *Id.* at 1:11–15, 3:29–32.

Cryptographic keys are a longstanding security tool that are used (as an input to a cryptographic algorithm) to encrypt and decrypt information. *See* D.I. 14 ¶ 23 (cryptographic "key systems existed long before [blockchain technology]"). Cryptographic keys are generally long

[2] A "blockchain" is a distributed "ledger" of transactions—a public list with identical copies on computers across the world—that can track the ownership and exchange of digital assets, such as cryptocurrency. D.I. 14 ¶¶ 8–9. Though this case involves technology used to build blockchain-based computer applications, the claims are largely independent from blockchain technology.

strings of numbers and letters. *Id.* ¶ 24. A public/private key pair is the combination of two specific types of keys with a property called "dualism"—which means information encrypted with one key can ***only*** be decrypted using the other. Thus, information encrypted using a "public key" can only be decrypted by the corresponding "private key," which must be kept secret. *See id.* ¶¶ 22–23.

In the blockchain context, public-private key pairs can be used "to perform … identity authentication and authorization," '321 patent, 3:4–5, when transferring or proving ownership of digital assets, D.I. 14 ¶¶ 22–23. But (according to the pleadings) cryptographic keys are difficult to manage because, e.g.: they are long and random, they cannot be changed, and private keys must be kept secret. '321 patent, 3:34–40; D.I. 14 ¶ 24.

Prior to the '321 patent, there were well-known solutions for an end user to "manag[e], control[], and us[e] cryptographic keys." D.I. 14 ¶¶ 24–29. One such well-known solution involved an end user generating keys locally and then sending them to a third-party provider who would store and encrypt the keys "on a [hardware security module ('HSM')] operated in a secure cloud environment." *Id.* ¶ 27. This "third-party HSM[]" sits between the user and an application that requires the use of the keys, much like an escrow service. *Id.* The problem with this approach, according to Magic, is that the end user bore the burden of "generating keys and coordinating with the third-party provider," and third-party HSMs were "complicated and expensive to set up." *Id.*; '321 patent, 3:34–36 ("[C]onsumer deployment of cryptography-based security has failed to provide an acceptable user experience."). Magic also alleges that, when the keys are "passed back and forth," they may be "compromised in transit …, in storage, or in memory." D.I. 14 ¶ 30.

B. The '321 Patent

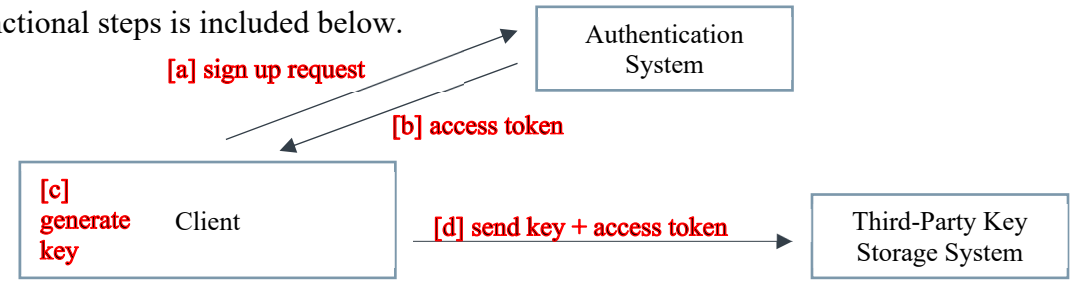
The '321 patent seeks to improve security and convenience for end users who need cryptographic keys. It purports to improve on prior art by providing a "non-custodial" method for locally generating cryptographic keys after a user has been authenticated and for sending them to

a third-party key storage provider. '321 patent, 1:51–55. The process involves three entities: a software service provider's authentication server, a user, and a third-party key storage provider. D.I. ¶ 33. A key "is created on a client machine" and sent directly to a third-party key storage provider for storage and encryption. '321 patent, 1:51–55. The system is "non-custodial" because the authentication server never has access to the user-generated keys. *Id.*; D.I. 33.

Claim 11—the only claim mentioned in Magic's FAC, *id.* ¶ 44[3]—recites the following:

> 11. A non-transitory computer readable storage medium having embodied thereon a program, the program being executable by a processor to perform a method to setup a wallet for a decentralized application by performing a non-custodial authentication method for a client, the method comprising:
>
> **[a]** *sending*, over a network by the client to an authentication system, a sign-up request for a user account associated with the decentralized application;
>
> **[b]** *receiving* over the network at the client from the authentication system, an access token that corresponds to the sign-up request, for use at a third[-]party key storage system;
>
> **[c]** *generating* a key by the client; and
>
> **[d]** *sending* over the network from the client to the third[-]party key storage system and by passing the authentication system, one or more messages that include the access token, the key, and a request to encrypt the key.

Id. at 11:62–12:12 (italics and limitation numbering added). As the italicized language shows, the claim is comprised of several functional steps, each of which describes either communication between systems over a network or generation of a key by the client. A visualization of these functional steps is included below.



[3] Claim 11 is representative because all the claims "are substantially similar and linked to the same abstract idea." *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343, 1348 (Fed. Cir. 2014). Nonetheless, we also addresses the remaining claims. *See infra* 18–20.

First, **[a]** a client (*e.g.*, a user's computer) *sends* a "sign-up request for a user account" to an "authentication system." *Id.* at 12:1–3. In response, **[b]** the client *receives* (from the authentication system) an "access token . . . for use at a third[-]party key storage system." *Id.* at 12:4–7. The client then **[c]** "generat[es] a key." *Id.* at 12:8. And finally, **[d]** the client sends "the access token, the key, and a request to encrypt the key" directly to a "third[-]party key storage system," "bypassing the authentication system." *Id.* at 12:9–12.

Magic's FAC *admits* that prior to their alleged invention it was well-known for users to **[c]** generate their own keys and **[d]** store them with a third-party key storage provider. D.I. 14 ¶ 27. But Magic nonetheless contends that the claims embody a "new system architecture" in which "[t]he software service provider acts as a *non-custodial* intermediary between the end user and the third-party key storage provider." *Id.* ¶ 33.

And while Magic's FAC describes the supposedly novel architecture as incorporating various additional components and steps—including the generation and use of "a master key" and "scoped credentials," and use of a "JavaScript iframe" when generating a public-private key pair—none of those features are included in any independent or dependent claim of the '321 patent. *Compare id.* ¶¶ 34–35, 37 *with* '321 patent, 11:5–13:9.

IV. LEGAL STANDARD

The Supreme Court's *Alice* decision established a two-part framework for determining eligibility under § 101. 573 U.S. at 217–18. First, a court must "look at the 'focus of the claimed advance over the prior art' to determine if the claim's 'character as a whole' is directed to excluded subject matter," such as an abstract idea. *Affinity Labs of Tex., LLC v. DirectTV, LLC*, 838 F.3d 1253, 1257 (Fed. Cir. 2016). If the claim is directed to excluded subject matter, then the Court proceeds to step two and asks whether the claim elements, considered "both individually and 'as an ordered combination[,]' … 'transform the nature of the claim' into a patent-eligible

application." *Alice*, 573 U.S. at 217 (quoting *Mayo Collaborative Servs. v. Prometheus Lab'ys, Inc.*, 566 U.S. 66, 78 (2012)). Subject matter eligibility is a question of law that may be resolved by way of a motion to dismiss. *E.g.*, *Content Extraction*, 776 F.3d at 1351. To survive a motion to dismiss, a complaint must contain sufficient factual matter, accepted as true, to state a claim to relief that is plausible on its face. *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). However, a court need not accept "legal conclusions," *id*., or "allegations that contradict matters properly subject to judicial notice or by exhibit, such as the claims and the patent specification," *Secured Mail Sols. LLC v. Universal Wilde, Inc*., 873 F.3d 905, 913 (Fed. Cir. 2017) (internal quotation omitted).

V. ARGUMENT

A. *Alice* Step One: The Representative Claim Is Directed To An Abstract Idea.

Claim 11 is directed to using a software program to facilitate setting up a third-party key storage. This is abstract under *Alice* step one because using software to implement a *known* process (*i.e.*, generating keys locally and then sending them to a third-party key storage custodian for encryption) is an abstract idea. *See, e.g.*, *Credit Acceptance Corp. v. Westlake Servs.*, 859 F.3d 1044, 1054–56 (Fed. Cir. 2017) (claims using software to implement a "previously manual" loan application process are directed to an abstract idea).

As explained above (at 3–4), claim 11 is comprised of four functional steps, all geared towards facilitating the set up of third-party key storage. Two of these steps, **[c]** generating a key and **[d]** sending a key to a third-party HSM for encryption and storage, are *directly* within the scope of admitted prior art. *See* D.I. 14 ¶ 27. The only thing claim 11 adds is the idea of having an "authentication system" *facilitate* that process with an "access token"—which is provided to the client in steps **[a]** and **[b]**, and passed on to the third-party key storage provider in step **[d]**. '321 patent, 12:1–12. The specification provides no guidance as to what the access token is or what is does. *Id.* Its very brief discussion provides only that the access token allows the client "to

directly communicate with" a third-party key storage provider, with no technical details. *Id.* at 4:50–55; D.I. 14 ¶ 35. Thus, the recitation of the "access token" in the claims only confirms that the claims are directed to using software to facilitate the set up of third-party key storage.

Magic's FAC confirms that the "focus of the *claimed* advance" is the idea of facilitating the set up of third-party key storage. It emphasizes that the advance was not third-party key storage—because using third-party HSMs was already a conventional approach—but more specifically having the software service provider, through the authentication server and provided access token, facilitate that set-up process. As Magic puts it, the software "acts as a *non-custodial* intermediary between the end user and the third-party key storage provider, providing the infrastructure the user needs to securely generate keys and coordinate with a third-party key storage provider," without sacrificing the user's control over her keys. D.I. 14 ¶ 33 (italics in original); *Id.* ¶ 32 (saying the claimed solution offers "convenience").

Magic's allegations therefore make clear that the concept at the heart of what is claimed in the '321 patent is using software to facilitate the key generation and management process that the user would otherwise have to figure out themselves. The only difference between the prior art third-party key storage method, *see* D.I. 14 ¶ 27, and what is described in the '321 patent claims is that the claimed process uses software to ***facilitate*** the process by providing an (unspecified) "access token" that is passed to first to the user and then to the key storage device but which is not claimed as *performing any function* whatsoever. Accordingly, the "focus of the claimed advance" is the *idea* of facilitating the set up of third-party key storage.

1. <u>Software Facilitation Of A Known Process Is An Abstract Idea</u>.

Courts consistently find claims directed to software facilitation of a known process (including, specifically, setting up third-party storage) to be abstract and ineligible. In *Alice*, the foundation of modern patent-eligibility jurisprudence, the Supreme Court found abstract claims

"designed to facilitate the exchange of financial obligations between two parties by using a computer system as a third-party intermediary." 573 U.S. at 213, 218. The claims were drawn to the fundamental, long-prevalent "concept of intermediated settlement" because the claimed software simply "issues . . . instructions to the exchange institutions to carry out the permitted transactions." *Id.* at 219–20. Just like the software in *Alice* directed the "exchange institutions" to carry out the abstract idea of escrow, the claims here simply connect the client with a third-party key storage provider (by way of a generic "access token") and direct the client to carry out the long-prevalent concept of setting up third-party key storage. *See* D.I. 14 ¶ 27. *See also Broadsoft, Inc. v. CallWave Commc'ns, LLC*, 282 F. Supp. 3d 771, 781 (D. Del. 2017) ("facilitat[ing] connecting a caller with a called party" is abstract).

Magic characterizes the claimed software as an "intermediary" that manages the process of setting up third-party key storage on behalf of the user. D.I. 14 ¶ 33. If a software "intermediary" is any different from "facilitating" the process using software, the claims are still abstract. In *LendingTree, LLC v. Zillow, Inc*., for instance, the Federal Circuit found that claims reciting a software "intermediary" that coordinated data transmission for processing loan applications were directed to an abstract idea. 656 F. App'x 991, 996 (Fed. Cir. 2016). The Federal Circuit concluded that the fact that "the patents in suit use a [computerized] broker . . . to organize the [loan application] process is of no consequence" because "third-party intermediar[ies]" are "a building block of the modern economy." *Id.*[4] Whether framed as "facilitating" a process using software or

[4] *See, e.g.*, *GoDaddy.com LLC v. RPost Commc'ns Ltd.*, No. CV-14-00126, 2016 WL 3165536, at *9 (D. Ariz. June 7, 2016) ("collecting and providing information … using a third party intermediary" was "an abstract idea [with] an extensive history dating back decades, if not centuries"), *aff'd*, 685 F. App'x 992 (Fed. Cir. 2017); *Card Verification Solutions, LLC v. Citigroup Inc.,* No. 13 C 6339, 2014 WL 4922524, at *4 (N.D. Ill. Sept. 29, 2014) ("passing along confidential information through a trusted, third-party intermediary is an abstract idea).

using a software "intermediary," claims like those of the '321 patent that use software to execute a known, prior-art process are directed to an abstract idea.

2. The Claim Merely Recites Generic Data Transmission And Manipulation.

The abstractness of the '321 claims is further confirmed by the fact that the claimed steps are nothing more than generic data transmission and manipulation: "sending," "receiving," "generating," and "sending." '321 patent, 12:1–12. The Federal Circuit and district courts alike have consistently held that claims involving transmitting and manipulating data—including in authentication processes—"fall into a familiar class of claims 'directed to' a patent-ineligible concept." *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1352–54 (Fed. Cir. 2016).

In *Electric Power*, for instance, the Federal Circuit held claims directed to "collecting information, analyzing it, and displaying certain results" to be abstract and ineligible. 830 F.3d at 1353. The court explained that data manipulation "by steps people go through in their minds, or by mathematical algorithms," is an abstract idea. *Id.* at 1354. And in *RecogniCorp, LLC v. Nintendo Company*, the Federal Circuit held that claims directed to "encoding and decoding image data" were patent ineligible because "[a] process that started with data, added an algorithm, and ended with a new form of data was directed to an abstract idea." 855 F.3d 1322, 1326–27 (Fed. Cir. 2017). Here, too, the claimed steps are no more than mathematical manipulation of data (in the generating step) and transmitting data (in the others).

Steps **[a]** and **[b]** are simply information transmission between a client (*e.g.*, an end user's computer) and an authentication system. In step **[a]**, the client sends a sign-up request to the authentication system. In step **[b]**, the client receives, from the authentication system, an (unspecified) access token "for" (an unspecified) "use at a third[-]party key storage system" that

corresponds to the sign-up request. Thus, steps **[a]** and **[b]** involve nothing more than the transmission of (undefined) information that plays some (unspecified) role in providing access.

The next parts of the claim, steps **[c]** and **[d]**, merely recite the idea of generating credentials and sending them (along with the access token) to a trusted third party for storage. Generating a key, as in step **[c]**, is a standard form of data manipulation that constitutes an abstract idea. Indeed, the claims do not offer further details about how the key is generated, and both the FAC and the specification reflect that key generation is a well-known mathematical process. *See* D.I. 14 ¶¶ 21–23; '321 patent, 5:8–13. In step **[d]**, the client sends the key, along with other data, to the third-party storage system. Like steps **[a]** and **[b]**, this is simply transmitting data. Processes, like that of claim 11, that recite only data transmission and manipulation are generally found to be directed to abstract ideas under the first step of the *Alice* analysis. *See, e.g.*, *Smart Sys. Innovations, LLC v. Chi. Transit Auth., Cubic Corp.*, 873 F.3d 1364, 1371–72 (Fed. Cir. 2017) ("acquiring identification data from a bankcard, using the data to verify the validity of the bankcard, and denying access to a transit system if the bankcard is invalid" is directed to the abstract idea of "collection, storage, and recognition of data").

3. The Claim Is Not Directed To An Improvement In Computer Functionality.

Courts also assess subject-matter eligibility of computer-implemented inventions by asking whether the claims "are directed to an improvement in the functioning of a computer," *Affinity Labs*, 838 F.3d at 1260 (internal quotations omitted), or recite "a specific technical solution … to a technological problem." *Universal Secure*, 10 F.4th at 1355. The '321 patent does no such thing.

Magic alleges that patent's "novel system architecture" provides improved "security." D.I. 14 ¶ 32. Specifically, it contends that generating the keys in "a JavaScript iframe" "provides a technological solution (via sandboxing) to a technological problem (i.e., potential security

risks…).” D.I. 14 ¶¶ 37–38. And it emphasizes how “the master key” and “scoped credentials” supposedly avoid “exposing [the public-private key pair] to the authentication server or … to any technology infrastructure outside the third-party [key storage provider.]” D.I. ¶¶ 35–36. But these features are irrelevant to the § 101 analysis because they are not claimed by the patent. “[W]hile the specification may help illuminate the true focus of a claim, when analyzing patent eligibility, reliance on the specification must always yield to the claim language.” *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 766 (Fed. Cir. 2019) (explaining that, because § 101 is driven by preemption concerns, the inquiry is defined by the claims measuring the scope of exclusion).

And there is no *claimed* feature that is an improvement in computer functionality. As explained above, claim 11 does not alter the underlying third-party key storage process. It simply provides for software that facilitates the known process of setting up third-party key storage by connecting users with providers. This may improve the user experience of implementing the abstract idea of third-party storage, but “it is not enough … to merely improve a fundamental practice or abstract process by invoking a computer merely as a tool.” *Customedia Techs., LLC v. Dish Network Corp.*, 951 F.3d 1359, 1364 (Fed. Cir. 2020); *Elec. Power*, 830 F.3d at 1354 (claims using “existing computers as tools in aid of processes” are directed to abstract ideas).

That the claims are not directed to an improvement in computer functionality is clear from the functional language of the claims. The claims simply recite high-level functional steps—like “generating” a key and “sending” or “receiving” data over a network—without disclosing any “particular way of programming or designing the software” or “how this would be technologically implemented.” *Apple, Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1241, 1244 (Fed. Cir. 2016). Such “vague, functional” terms, “devoid of technical explanation as to how to implement the invention,” are abstract. *In re TLI Commc’ns LLC Patent Litig.*, 823 F.3d 607, 615 (Fed. Cir. 2016).

The Federal Circuit addressed a similar situation in *Universal Secure*, which held abstract and ineligible claims directed to "a method for enabling a transaction between a user and a merchant, where the merchant is given a time-varying code instead of the user's secure (credit card) information." 10 F.4th at 1349. The Court found that "the claims 'simply recite conventional actions in a generic way' (e.g., receiving a transaction request, verifying the identity of a customer and merchant, allowing a transaction) and 'do not purport to improve any underlying technology.'" *Id.* (citation omitted). Claim 11 also merely recites conventional actions in a generic way—sending a sign-up request, receiving an access token, generating a key, and sending the key, token, and an encryption request to a third-party storage provider—without explaining ***how*** those processes are achieved or purporting to provide any technological improvement. *See infra* 6; *see also Prism Techs. LLC v. T-Mobile USA, Inc.*, 696 F. App'x 1014, 1017 (Fed. Cir. 2017) (claims "providing restricted access to resources" using generic steps—"receiving" user identity, "authenticating" user identity, "authorizing," and "permitting access"—were abstract).

Similarly, in *Free Stream Media Corp. v. Alphonso Inc.*, the Federal Circuit found claims, which "facilitate[d] a communication session" between "devices on the same network," abstract. 996 F.3d 1355, 1363–64 (Fed. Cir. 2021). While the specification provided sparse details as to the underlying mechanisms, the court held that the claims did "not at all describe how that result is achieved," and therefore demonstrated no "improvement to computer functionality." *Id.* at 1364–65. Here too, the claims allegedly facilitate set up of third-party key storage through generic data communications, yet fail to describe any particular technical way the result is achieved. *See supra* 9.

Moreover, nothing in the specification "suggests that the [computer system] itself is improved from a technical perspective, or that it would operate differently than it otherwise could."

ChargePoint, 920 F.3d at 768; *see also Rady v. Boston Consulting Grp.*, Case No. 20-cv-02285, 2022 WL 976877, at *3 (S.D.N.Y. Mar. 31, 2022) (no improvement to "the functionality of storing and processing data on a blockchain" when the patent failed to "describe how the patent improves blockchains"). Instead, the specification describes the software in purely functional terms and recites generic computer components, behaving as usual. *See infra* 14–16.

Rather than improve a technical problem, both the specification and the FAC make clear that the patent is solving a *user experience* problem. *See* '321 patent, 3:34–36 ("[C]onsumer deployment of cryptography-based security has failed to provide an acceptable user experience."); D.I. 14 ¶ 33 (alleging that the patent improves user experience by "providing the infrastructure" needed to delegate the tasks of key generation and storage). The patent solves this user experience issue by facilitating the tasks of setting up third-party key storage, so a user does not need to figure out how to generate keys and coordinate with a third-party key storage provider by herself. *Id.* Merely "improving a user's experience while using a computer application is not, without more, sufficient to render the claims directed to an improvement in computer functionality." *Customedia Techs.,* 951 F.3d at 1365 (collecting cases).[5] Put differently, the problem Magic was trying to solve is not a *technological* problem, but a human one.

The specification and FAC say the software functions as a "non-custodial intermediary" without access to the user's keys, thereby providing improved security. *See* '321 patent, 1:41–55; D.I. 14 ¶ 33 (italics removed). But this is not an improvement in computer functionality because,

[5] The specification also describes the '321 patent as improving user identity management by increasing security through "a decentralized identifier token (DIDT)." '321 patent, 3:41–47; *see also id.* at 1:67–2:22, 3:11–13, 3:43–45, 9:10–28 (describing DIDT). None of the patent claims involve this decentralized identifier token. Similarly, the claims do not include any of the steps described in the specification as allowing lost identity recovery. *See id.* at 5:24–28. These purported technological advancements are therefore irrelevant to the § 101 inquiry.

as Magic admits, having a user generate keys locally and then store them with a third-party key storage system was well known prior to the '321 patent. D.I. 14 ¶ 27. When Magic has *admitted* that it was known in the prior art for authentication systems not to have access to the user's keys, that is not a *technological improvement* attributable to the claimed invention. *See also Universal Secure*, 10 F.4th at 1350–53 (holding ineligible software claims that combined two security techniques but acheived nothing "more than the expected sum of the security provided by each technique"). Much like how the escrow component of the software-implemented escrow in *Alice* was responsible for any mitigation of risk, here, any security provided by the claimed system stems from the well-established process of using a third-party for key storage—not from the addition of software to facilitate set up of third-party storage. 573 U.S. at 220; *see also Universal Secure*, 10 F.4th at 1350 (finding software claims for third-party storage of "secure (credit card) information" abstract and ineligible); *Boom! Payments, Inc. v. Stripe, Inc.,* 839 F. App'x 528, 532 (Fed. Cir. 2021) (explaining that having an intermediary store sensitive payment information—in a word, escrow—is a classic abstract idea, much like the claims found invalid in *Alice*).

In short, the '321 claims are directed to facilitating the set up of third-party key storage. Analogizing to other "facilitation" claims, observing the claims' functional focus on data manipulation and transmission, and examining the claims for any claimed technological improvement all confirm that this is abstract concept under *Alice* step one.

B. *Alice* Step Two: The Claim Includes No Inventive Concept

The '321 patent's claims also fail to provide any "inventive concept" that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [abstract idea] itself." *Alice*, 573 U.S. at 217–18. The Federal Circuit and the Supreme Court have set out two clear rules for what qualifies as an inventive concept. First, "[t]he abstract idea itself cannot supply the inventive concept, 'no matter how groundbreaking the advance.'" *Trading Techs. Int'l,*

Inc. v. IBG, LLC, 921 F.3d 1378, 1385 (Fed. Cir. 2019) (citation omitted). Second, elements that are "well-understood, routine, conventional," or "purely functional" cannot "transform" an abstract idea into a patent-eligible application of the idea. *Alice*, 573 U.S. at 225–26 (citation omitted). The '321 patent fails for both reasons; it recites only the abstract idea of facilitating set up of third-party key storage and does so using only conventional, functional elements.

As an initial matter, the patent claims include only generic computer hardware, namely "[a] non-transitory computer readable storage medium," "a program," "a processor," and "a network." '321 patent, 11:62–12:12; *see, e.g.*, *Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1341 (Fed. Cir. 2017) (a "processor" is generic); *Mortg. Grader, Inc. v. First Choice Loan Servs. Inc.*, 811 F.3d 1314, 1324 (Fed. Cir. 2016) (a "network" is generic); *GeoComply Sols. v. Xpoint Servs.*, No. 22-1273, 2023 WL 1927393, at *8 (D. Del. Feb. 10, 2023) (similar). The specification confirms that the invention requires only generic computer hardware. '321 patent, 10:43–47 (components are "those typically found in computer systems"). "[G]eneric computer components [are] insufficient to add an inventive concept to an otherwise abstract idea." *TLI*, 823 F.3d at 614.

Nor is there an inventive concept in any individual functional step: "sending a sign-up request"; "receiving . . . an access token"; "generating a key"; or "sending . . . the access token, the key, and a request to encrypt the key." '321 patent, 12:1–12. The recited components "behave exactly as expected" and therefore cannot confer patent eligibility. *TLI*, 823 F.3d at 615.

To start, nothing in the claims or the specification differentiates "a sign-up request for a user account with the decentralized application" from any other sign-up request for a user account. '321 patent, 12:1–3. Similarly, the patent offers no indication that the claimed "access token" is anything other than conventional. Claim 11 offers no particulars regarding the token, specifying

only that that the access token "corresponds with the sign-up request" and is "for use at a third[-]party key storage server." *Id.* at 12:5–7. The specification's similarly sparse description provides:

> The time bound access token may include time-to-live (TTL) data embedded within the token. . . . The time bound token allows client . . . to directly communicate with third party service.

Id. at 4:49–55. In short, the access token is simply a token—a piece of data—that (in some unspecified and unclaimed way) facilitates client communication with third-party key storage.

Courts have routinely rejected such generic tokens as inventive concepts. In *Universal Secure*, for instance, the claimed system involved transmitting a "time-varying code" that could be used "to access a database" and to allow "a third party or credit card company to approve . . . the transaction." 10 F.4th at 1349. The Federal Circuit explained that use of such codes is "conventional and long-standing," and therefore cannot constitute an inventive concept. *Id.* at 1350. The generic access token here is functionally equivalent to the time-varying codes in *Universal Secure*. *See also Asghari-Kamrani v. United Servs. Auto. Ass'n,* No. 15-cv-478, 2016 WL 3670804, at *1 (E.D. Va. July 5, 2016), *aff'd*, 737 F. App'x 542 (Fed. Cir. 2018) (using a time-dependent code for authentication did not constitute an inventive concept). Alternately, the token is similar to other conventional access-granting elements, like a ticket or wristband; nothing in the '321 patent—and certainly nothing in the claims— indicates that access tokens are anything other than conventional. *See Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1149 (Fed. Cir. 2016) (explaining that an inventive concept must be captured in the claims); *Accenture Glob. Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) ("[D]etail in the specification does not transform . . . an abstract concept into a patent-eligible system").

In the same vein, the claimed key generation process is no different from conventional key generation. The specification makes clear that key generation is a known cryptographic process

(that is, math) that was not invented by the '321 patent. *See* '321 patent, 5:8–12. And Magic's FAC confirms that, prior to the '321 patent, end users would generate keys and then store them with prior art third-party HSMs—so the "non-custodial" aspect of the key generation described in claim 11 (*i.e.*, the client generating the key) was likewise conventional. D.I. 14 ¶ 27.

Lastly, there is no indication that the final, "sending" step of the claim differed in any way from conventional network-based communication. '321 patent, 12:9–12.

In sum, none of the claimed steps involve anything beyond using conventional computer components as they were designed to be used, and the use of conventional components for their conventional purposes cannot constitute an inventive concept that confers patent eligibility. *See, e.g.*, *TLI*, 823 F.3d at 613 ("[C]omponents must involve more than performance of 'well-understood, routine, conventional activities' previously known to the industry' . . . to add an inventive concept sufficient to bring the abstract idea into the realm of patentability." (quoting *Alice*, 573 U.S. at 225)). Instead, as explained above, they recite an abstract, facilitation of using third-party key storage and require that it be implemented in the blockchain context.

Magic's FAC suggests that—even if the individual steps are conventional—the Court should nonetheless find an inventive concept because the steps collectively provide for a "new system architecture that inverted the conventional industry architectures." D.I. 14 ¶ 33; *see BASCOM Glob. Internet Servs. v. AT&T Mobility LLC*, 827 F.3d 1341, 1350 (Fed. Cir. 2016) (holding that a claim's "particular arrangement of elements" constituted an inventive concept). Specifically, Magic alleges that the architecture was "new" because it does not rely on "one entity (either the end user or a software service provider) [to] manage key generation and storage," but rather splits them across the end user, a software service provider, and a third-party key storage system. D.I. 14 ¶ 33. But this supposedly inventive architecture is nothing but the abstract idea

itself—having a software intermediary facilitate the set-up of third-party key storage—and therefore cannot constitute an inventive concept. *See BASCOM* , 827 F.3d at 1349 ("An inventive concept that transforms the abstract idea into a patent-eligible invention must be significantly more than the abstract idea itself . . . ."). The Federal Circuit reached the same conclusion regarding the intermediary in *Universal Secure*, which supposedly constituted a new architecture that would "mitigate information security risks." *Universal Secure*, 10 F.4th at 1350. "Because sending data to a third-party as opposed to the merchant is itself an abstract idea," the Court explained, "it cannot serve as an inventive concept." *Id.* So too here.

Moreover, Magic's FAC acknowledges that the idea of having a third party store a user-generated key was well understood in the art prior to the '321 patent. D.I. 14 ¶ 27. In these "[t]hird-party HSMs"—as in claim 11—the end user would "generat[e] keys and coordinat[e] with the third-party provider" to store and encrypt those keys. *Id*. The only thing the '321 patent adds is having software facilitate that process—and there is nothing inventive about having a software intermediary facilitate the same steps used in the prior art.

This case is therefore unlike *BASCOM*, where the "non-conventional and non-generic arrangement of known, conventional pieces" allowed for new technical capabilities, and therefore constituted an inventive concept. *BASCOM*, 827 F.3d at 1350 (Fed. Cir. 2016). There, the Federal Circuit noted that the claims did not "preempt all ways of" achieving the abstract idea to which they were directed, and "the patent describe[d] how its particular arrangement of elements [was] a technical improvement over prior art ways." *Id.* Here, the software is simply facilitating a process that would otherwise have to be performed by an end user. That may be valuable from a user experience perspective, but the technical capabilities of the system—at least as claimed—are the exact same as the prior art third-party key storage systems.

C. The Remaining Claims Are Similarly Ineligible.

Claim 11 is the only claim specifically asserted (or even referenced) in the FAC. *See* D.I 1 ¶¶ 36–61. To the extent Magic disputes its representativeness, however, the additional claims of the '321 patent are directed to the same abstract idea and include no inventive concept.

- Claims 1 and 21 merely restate Claim 11 as a method claim and system claim, respectively. '321 patent, 11:5–19, 12:59–13:9. Neither adds content relevant to § 101.
- Claims 2–5 and 12–15 recite additional generic details regarding the sending and receiving of the initial sign-up request, including "sending" or "receiving the request for first authentication information over the network," *id.* at 11:20–23, 12:13–16, 11:24–27, 12:17–20; having that request involve "an email at the client" or "a message at a phone number associated with the client," *id.* at 11:28–34, 12:21–28; and having the sign up request "include[] sending a login request," *id.* at 11:35–37, 12:29–32. Invoking additional generic computer elements and data transmission does not change the § 101 analysis. *Intellectual Ventures I*, 850 F.3d at 1329 ("sending and receiving information" are "routine computer functions"); *see supra* 14–16.
- Claims 6 and 16 specify that the "key" generated by the client is a "public-private key pair." '321 patent, 11:38–40, 12:33–35. But as the specification makes clear and Magic concedes, key pairs were conventional prior to the '321 patent (and, indeed, prior to the invention of blockchain). *Id.* at 3:32–40; D.I. 14 ¶¶ 21–23; *see Bancorp Servs., LLC v. Sun Life Assur. Co. of Can.*, 687 F.3d 1266, 1274 (Fed. Cir. 2012) (appending well-known computer components does not "salvage an otherwise patent-ineligible process"); *supra* 14–18.
- Claims 7 and 17 provide that the access token received at the client from the authentication system was "generated at the third-party key storage server." '321 patent, 11:41–44, 12:36–40. Specifying where the access token is generated does not change the focus of the claims,

especially given that it provides no further detail about what the token is or does. *See supra* 9–11.

- Claims 8 and 18 recite that the client sends an "authentication credential" to the third-party key storage server. '321 patent, 11:45–50, 12:41–46. Claims 9 and 19 provide that the "authentication credential" is received. *Id.* at 11:51–53, 12:47–49. Here too, adding sending and receiving steps using generic network communication does not change the § 101 analysis. *See buySAFE, Inc. v. Google, Inc.*, 765 F.3d 1350, 1355 (Fed. Cir. 2014); *supra* 8–10.
- Claims 10 and 20 provide that the information sent from the client to the third-party key storage server goes in a specific order: first the access token, followed by the authentication credential, the key, and the request to encrypt the key. '321 patent, 11:54–61, 12:50–58. This is purely the sending of information between the client and the third-party key storage server. And nothing in the patent suggests that anything about this order is unconventional: the access token allows the client "to directly communicate" with the third-party key storage server, so it makes sense to be sent before the rest of the information. *Id.* at 4:54–55; *see supra* 8–10.

In sum, the other claims, like representative claim 11, are directed to the abstract idea of facilitating set up of third-party key storage. They do not change the focus of the claims, do not recite any inventive concepts, and therefore do not change the patent eligibility calculus.

VI. CONCLUSION

Privy respectfully requests that the Court grant its motion and hold the '321 patent invalid under § 101. Dismissal without leave to amend is proper where, as here, there is no chance that further allegations would change the outcome. *See Fast 101 Pty Ltd. v. Citigroup Inc.*, 424 F. Supp. 3d 385, 393 (D. Del. 2020) (dismissing under § 101 without leave to amend).

MORRIS, NICHOLS, ARSHT & TUNNELL LLP

/s/ Brian P. Egan

Jack B. Blumenfeld (#1014)
Brian P. Egan (#6227)
1201 North Market Street
P.O. Box 1347
Wilmington, DE 19899-1347
(302) 658-9200
jblumenfeld@morrisnichols.com
began@morrisnichols.com

Attorneys for Defendant

OF COUNSEL:

Alyssa Caridis
ORRICK, HERRINGTON
& SUTCLIFFE LLP
355 South Grand Avenue, Suite 2700
Los Angeles, CA 90071
(213) 629-2020

Clement S. Roberts
ORRICK, HERRINGTON
& SUTCLIFFE LLP
The Orrick Building
405 Howard Street
San Francisco, CA 94105
(415) 773-5700

January 22, 2024

CERTIFICATE OF SERVICE

I hereby certify that on January 22, 2024, I caused the foregoing to be electronically filed with the Clerk of the Court using CM/ECF, which will send notification of such filing to all registered participants.

I further certify that I caused copies of the foregoing document to be served on January 22, 2024, upon the following in the manner indicated:

Daniel M. Silver, Esquire — *VIA ELECTRONIC MAIL*
Alexandra M. Joyce, Esquire
McCarter & English, LLP
Renaissance Centre
405 North King Street, 8th Floor
Wilmington, DE 19801
Attorneys for Plaintiff

Daralyn J. Durie, Esquire — *VIA ELECTRONIC MAIL*
Ragesh K. Tangri, Esquire
Timothy C. Saulsbury, Esquire
Michael Burshteyn, Esquire
Joyce C. Li, Esquire
Morrison & Foerster LLP
425 Market Street
San Francisco, CA 94105
Attorneys for Plaintiff

Sara Doudar, Esquire — *VIA ELECTRONIC MAIL*
Morrison & Foerster LLP
707 Wilshire Blvd.
Los Angeles, CA 90017
Attorneys for Plaintiff

/s/ Brian P. Egan

Brian P. Egan (#6227)